Enclosure 1

Plastic Parts Surface Coating Survey Forms

U.S. ENVIRONMENTAL PROTECTION AGENCY OFFICE OF AIR QUALITY PLANNING & STANDARDS EMISSION STANDARDS DIVISION RESEARCH TRIANGLE PARK, NC 27711

DATE: October 30, 1998

TO: Persons interested in the development of air emission standards for the surface

coating of plastic parts and products

FROM: Bruce Moore, U.S. Environmental Protection Agency (EPA)

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OFFICE: U.S. Environmental Protection Agency

Office of Air Quality Planning & Standards

Emission Standards Division Research Triangle Park, NC 27711

SUBJECT: Alternative Questionnaire for Surface Coating of Reinforced Plastic

Composite Parts and Products

What is this questionnaire?

The EPA is in the process of collecting data for air emission standards for the reinforced plastic composites subcategory of the plastic parts and products (PPP) industry. This questionnaire has been designed as an industry-specific alternative to EPA's generic questionnaire to give you the best opportunity to let EPA know about your processes, including any special situations that limit your choice of coatings. The forms and examples have been customized to provide specific help for surface coaters of reinforced plastic composites.

What is contained in this enclosure?

This enclosure contains the complete alternative questionnaire, Forms A through J, and general instructions.

What are these forms, and why did I receive them?

The questionnaire forms in this package were designed specifically for gathering information for the development of Maximum Achievable Control Technology (MACT) standards for the emissions of hazardous air pollutants (HAP) from nine surface coating categories, as required under section 112 of the Clean Air Act (CAA) as amended in 1990. These regulations are expected to be promulgated in November of the year 2000. There are nine source categories that are on this schedule; note that six of the nine categories will also be subject to regulation for volatile organic compound (VOC) emissions under section 183(e) of the CAA.

The nine surface coating categories consist of the following:

- Automobile and light-duty trucks (*)
- Fabric
- Large appliances (*)
- Metal can
- Metal coil
- Metal furniture (*)
- Miscellaneous metal parts and products (*)
- Plastic parts and products (*)
- Wood building products (*)

Source categories indicated by an asterisk (*) will have both MACT standards under section 112 of the CAA and VOC actions under section 183(e) of the CAA. Your facility has been identified as belonging to the Plastic Parts and Products (PPP) surface coating category.

Please see the definitions section of Enclosure 1a for additional detail concerning how each of these categories is defined. If you feel that your facility is better represented in another source category, or if your facility coats items belonging to another source category in addition to PPP, please contact Mr. Bruce Moore, the EPA project lead for the PPP source category, at (919)541-5460 or moore.bruce@epamail.epa.gov. For further

information concerning this questionnaire, you may also contact Ms. Kim Teal, EPA, at (919) 541-5580 or teal.kim@epamail.epa.gov. An additional contact for technical, survey-specific questions is Mr. Greg DeAngelo, Eastern Research Group, Inc. (phone: (919) 468-7851, email: deangel@erg.com).

To better understand the industry and to develop concise, sensible rules, the EPA has created these forms as an alternative to the "generic questionnaire," which is a pre-approved questionnaire designed to gather information necessary to develop MACT standards. This alternative questionnaire is the best opportunity for you to describe your surface coating and ancillary operations so that the eventual regulations will be workable, practical, and technically accurate. The EPA must have good data to develop regulations that make sense.

How did you get my name?

The mailing list for the reinforced plastic composites subcategory was provided by the Composite Fabricators Association. The alternative questionnaire has been addressed to the corporate environmental official (when known) instead of the individual facilities for the following reasons:

- to alert corporate owners of the data collection effort.
- to allow corporate owners the opportunity to provide a coordinated response from all of their facilities,
- to reduce the amount of mailing to individual facilities, and
- to ensure that individual facilities are not missed.

What if I do not coat plastic parts or products?

If you do not apply coatings, adhesives, sealants, caulks, etc. (see definition of coating) to PPP, please fill out and return only the first page of Form A. This will consist of answering items **A-1** through **A-4** (name, address, and contact

information). Then, in item **A-5**, check the box specifying that you do not perform surface coating of PPP. Filling out and returning this single sheet will help complete our records as well as ensure that no penalties are assessed and that in the future, no similar material will be sent to your facility. If you coat materials that could be classified under another surface coating category and you would like EPA to consider your facility's data during this rulemaking process, you should fill out and return items **A-1** through **A-4** and **A-5** as noted above and may contact Mr. Bruce Moore or Ms. Kim Teal to obtain the appropriate questionnaire.

How do I fill out these forms?

The EPA expects that some questionnaires will be completed at the corporate level and that some will be completed at the individual facilities. In addition, many of the forms will require multiple copies. You should evaluate your potential need for copying before beginning to fill out the forms.

One response should be provided for each facility or plant. Each response should have a unique Facility Tracking Number. The Facility Tracking Number can be found on your mailing label and on the cover letter sent with this alternative questionnaire.

If you are reporting for one facility, simply use the Facility Tracking Number assigned. If you are reporting for more than one facility, add a letter to the end of the assigned Facility Tracking Number for each facility. For example, if your assigned Facility Tracking Number is ABC001 and you are reporting for three facilities, the individual Facility Tracking Numbers would be ABC001A, ABC001B, and ABC001C.

There are several forms (Form A through Form J) that comprise this alternative questionnaire. Most forms are short, consisting of only one or two pages of information. The EPA expects that some forms may need to be copied for you to provide all of the requested data. Each copy of each page of a form should have the Facility Tracking Number entered

on it. In addition, for tracking purposes, please indicate in the spaces provided on each page the copy number and the total number of copies of that page.

A definition section and further instructions specific to each form are included in Enclosure 1a.

How do the forms fit together?

The alternative questionnaire consists of several inter-related forms.

- Form A (Facility General Information); one form for each response.
- Form B (Material Data); one form is needed for each material (or group of similar materials) used in the facility that can contribute to the emissions of VOC or HAP. Although it is expected that most materials will be coatings, the information requested on Form B includes materials used in surface preparation, equipment cleaning, etc. The other forms will reference the material identification number that you assign each of your materials or groups of materials.
- Form C (Control Devices); one form is needed for each control device used at your facility to control emissions from surface coating of PPP.
- Form D (Coating Scenarios); one form for each response. Use this form to describe the parts you coat, the systems of coatings that you apply, and your coating application methods.
- Form E (Surface Preparation); one form is needed for each unique surface preparation activity.
- Form F (Storage); one form is needed for each unique storage area.
- Form G (Mixing Operations); one form is needed for each unique mixing operation.
- Form H (Cleaning Operations); one form is needed for each unique cleaning operation.
- Form I (Waste and Wastewater); one form for each response. Use this form to describe the waste and wastewater handling throughout your facility.

GENERAL INSTRUCTIONS

 Form J (Comment Sheet); use copies of this form as necessary to provide any additional detail for any response on any other form.

Can you provide me an example of how to fill out the forms?

Enclosure 1a contains an example of the forms completed for a facility coating reinforced plastic composites.

What is a coating scenario?

Essentially, a coating scenario should be defined for each unique combination of the parts you coat, the coating systems used, and the application methods. See the Form D instructions (Enclosure 1a) for more details and examples.

Facility	Tracking	Number	:
Facility	Tracking	Number	ľ

FORM A. General Facility Information

Pa	ige	1	of	4
(Copy		of	f)

Facility address:					
racinty address.	street	city	county	state	zip code
Corporate owner Name:					
Mailing address:	street	city		state	zip code
Technical contact Name and title:					1
Mailing address:	street	city	county	state	zip code
Telephone:		Fax:	•		•
Facility description [] No coating of p	plastic parts or produc	ets is performed at this fac	ility		
Date of original co	onstruction of facility	:SAR	RA TRI facility ID r	number:	
Number of facility	employees:	NunN	nber of coating emp	loyees:	
Dun and Bradstre	et number:	Prov	vide a brief descripti	ion:	

	Product description				53 97 9	T = .
	Product		End-use	Product		End-use
		[] NAICS	Product?		[] NAICS	Product ^o
			[]Y[]N			[]Y[]N
			[]Y[]N			[]Y[]N
			[]Y[]N			[]Y[]N
			[]Y[]N			[]Y[]N
			[]Y[]N			[]Y[]N
			[]Y[]N			[]Y[]N
			[]Y[]N			[]Y[]N
A-7. A-8.	Corporate sales			r year (If not 1996, enter Sales attributable to c		
A-9.	Surface coating cate	gories	(Check	all that apply. See definit	ions for description of t	he categories
		ight duty truck [] F	Fabric Metal furniture	[] Large appliances [] Miscellaneous met		

If "yes," indicate the most recent date that a LAER limit was instituted: _____ and provide a comment sheet

specifying which coating scenarios are affected by LAER and the dates LAER was implemented for each.

Has a LAER limit been placed on any coating scenario at your facility?

[] No

Facili	ty Tracking Number:	FORM A.	General Facility Information	Page 3 of 4 (Copy of)
A-11.	Title V classification	[] Major [] Synthe	source [] Minor or area source etic minor source [] Unknown	
	Basis for determ	mining title V classificat	ion:	
	List any co-loc	rated activities influencing	ng title V classification:	
A-12.	Are R&D active If "yes" or "uns	sure," briefly and qualita	facility? [] Yes [] No [] Unitively describe the R&D activities and their pure	` • • • • • • • • • • • • • • • • • • •
	Estimate HAP R&D Activity	emissions for each R&D Emissions Estimate (include units)	Basis for Emissions Estimate	Emissions are Vented to:
		(include units)		
		•	ivities associated with PPP surface coating that &D activities, location, and purpose:	are conducted at other locations?
CBI o	on this sheet: [] All []	Some (circle) [] None	Alternative Questionn	aire for Reinforced Plastic Composites

FORM A. General Facility Information

P	age 4 of 4
(Copy	of)

A-13. Response summary[] Form A; number: _____ [] Form E; number: ____ [] Form I; number: _____

[] Form B; number: _____ [] Form F; number: ____ [] Form J; number: ____

[] Form C; number: _____ [] Form G; number: _____

[] Form D; number: _____ [] Form H; number: _____

Facility Tracking Nun	ber:
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FORM B. Material Data

Pa	age I	ot	2
(Copy	0	of	_)

B-1.	Material identification: Material ID numb	per: MN	[] Single material [] Group of similar materials
	Product name:		• Fill out these blanks if this form is for a single material.
	Supplier's name:		For groups of similar materials, attach a Form J comment sheet with the product name, supplier's name, and supplier's
	Supplier's stock number:		stock number of each material in the group.
B-2.	Material usage:	(units) of the	his material used during the reporting year (ref. A-7)
B-3.	Material composition and formulation da	ata, as supplied	
	Product density (weight per volume)):	(units)
	Solids content:	_ weight percent	
	Total VOC content:	_ weight percent	
	Water content:	_ weight percent	
	Source of data: (check appropriate	source)	
	[] Test data		
	[] Certified product data sheet (CPI	DS)	
	[] Material safety data sheet (MSDS	S)	
	[] Other:		
B-4.	Thinner added: MN	Thinning ratio:(parts thinner: parts supplied co	- · · · · · · · · · · · · · · · · · · ·

Facility Tracking Number:	FORM B. Material Data	Page 2 of 2
		(Copy of)

B-5. Speciated components, as supplied

Name of Volatile Component (trade name if ingredient name is unknown)	CAS Number	Weight Percent *	HAP	VOC
(trade frame if ingredient frame is unknown)			Г1	ſ 1
				[]
			[]	[]
			[]	[]
				[]
			[]	[]
			[]	[]
			[]	[]
			[]	[]
			[]	[]
			[]	[]
Exempt VOC:			[]	[]
			[]	[]
			[]	[]
Total of aggregated components and exempts < 1.0 percent				
Water				
Percent solids				
Total of all components (must equal 100 percent)		100 %		

Name of Inorganic HAP Component	CAS Number	Weight Percent *

^{*} Weight percent is the weight percent of the component in the total weight of the product.

Facility	Tracking	Number:
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FORM C. Control Devices

Pa	age	1	of	1
(Copy		of	f)

C-1.	Control device identification Control device identification number: CD Position in series of controls: of units
	Provide a brief description:
C-2.	Vent stream characteristics
	Inlet flow rate: (units)
	Inlet temperature: (units)
	Inlet moisture: weight percent
C-3.	Control device efficiency: percent
C-4.	Basis for estimated control device efficiency Provide a brief description:
C-5.	Monitoring Describe any monitoring performed on this control device, whether parametric or outlet. Specify rule or permit
	2 course any monitoring performed on and contact action, machine of causes appearly rate of permits
	condition requiring the monitoring, and include the averaging time:

Facility	Tracking	Number:
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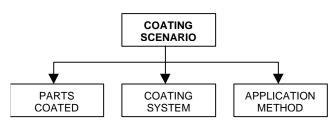
FORM D. Coating Scenario

Pag	ge 1 of	2
Conv	of)

D-1.	Provide a	name for	this	coating	scenario:
------	-----------	----------	------	---------	-----------

Note that each coating scenario is a unique combination of the parts you coat, the system of coatings you use, and the method of coating application (which includes application, flash-off, and curing). Fill out a separate Form D for each unique combination of parts, coating systems, and application methods.

For example, if you use one system of coatings (such as a base coat, top coat combination) for several different types of parts, you can define a single coating scenario. Then list each of the parts coated in that scenario in item D-2, describe the coating system in item D-3, and describe the application in items D-4 through D-6. But if the coating system varies with the type of part coated, then you should define multiple coating scenarios, using multiple copies of this form.



D-2. Provide information for each plastic part you coat in this coating scenario.

Part Name	Part Description	Part Shape	Longest Dimension	Flexible or Rigid?	Interior or Exterior?	Substrate

D-3. Identify your coatings, adhesives, and caulks applied in this coating scenario.

Material ID	Coating	Coating	Thickness	Number	Performance Specifications	Regulatory Specifications
	Type	Technology	(units)	of Coats		
MN -						
MN -						
MN -						
MN -						
MN -						
MN -						

Facility Tracking Number:	FOR	RM D. Coating		Page 2 of 2			
							(Copy of)
Coating scenario name:						(continued	, see item PPP-1)
D-4. Describe how the coat	ings are applied	in this	coating scenario.				
Spray Booth Description	Conveyance	Ap	plication Method	Enclosu	re V	ent I	PM / Overspray Control
D-5. Describe the flash-off	conditions in th	is coatin	g scenario.				
Flash-off Area	Description		Time (units)	Temp (units	s) End	closure	Vent
D-6. Describe the curing co	onditions in this	coating	scenario.				
Curing Area Descrip		Time inits)	Temp (units)	Enclosure	Vent	Туре	e of Curing

Facility	Tracking	Number:
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FORM E. Surface Preparation

Pa	age	1	of	2
(Copy		of	f)

E-1.	Surface preparation identi Surface preparation of)	
	Name of surface prepared	paration operation:		
	Type of operation:	_	[] Bleaching [] De-pai [] Solvent degreasing [] Strippi	
	List all coating scena	arios which use this s	urface preparation operation (ref. D	-1):
	Overall technology: General purpose:		[] Solvent-based [] Coating adhesion	[] Varies, or not applicable [] other:

E-2. Equipment

Equipment ID	Equipment Type	Process or Activity		Throughput	
			Hourly Maximum	Annual	Units
SE					

E-3. Materials used

Material ID (ref. B-1)	Annual Amount Used	Amount Used Units	Equipment ID (ref. E-2)
MN			SE

Facility Tracking Number:	FORM E. Surface Preparation	Page 2 of 2
		(Copy of)

E-4. Emissions capture and control

(If enclosed and vented, provide enclosure capture efficiency.)

Equipment ID (ref. E-2)	Enclosure	Vented	Enclosure Capture Efficiency (percent)
	[] open, unhooded	[] to building interior	
SE	[] open, hooded	[] to atmosphere	
	[] enclosed and vented	[] to control device; CD	
	[] open, unhooded	[] to building interior	
SE	[] open, hooded	[] to atmosphere	
	[] enclosed and vented	[] to control device; CD	
	[] open, unhooded	[] to building interior	
SE	[] open, hooded	[] to atmosphere	
	[] enclosed and vented	[] to control device; CD	
	[] open, unhooded	[] to building interior	
SE	[] open, hooded	[] to atmosphere	
	[] enclosed and vented	[] to control device; CD	
	[] open, unhooded	[] to building interior	
SE	[] open, hooded	[] to atmosphere	
	[] enclosed and vented	[] to control device; CD	

E-5. Alternatives to solvent-based and HAP containing materials

alternative materials that have been investigated as replacements and provide your assessment of them:	arry	
	_	
	_	

F-1.	Storage area ident Storage area			St	orage area nai	me:			
F-2.	This storage area s If storage ar			[]	Specific coat	ing scenarios	rio:		
F-3.	Method of storage		5-gallon cans	[] 55-gal	lon drums [] 100-gallon	(totes [] Stora	Check all that a ge tanks	pply.)
	[] Other:								
F-4.	Storage tank para	meters		(F	ill out for stor	age tanks with	h a capacity grea		
F-4.			Capacity (list units)				h a capacity grea	Temperature (include units)	lons.) Floating Roof
rage k ID	Storage tank paral	meters Diameter	Capacity	(F	ill out for stor	rage tanks with		Temperature	Floating
rage k ID	Storage tank param Material Stored (ref. B-1)	meters Diameter	Capacity	(F Orientation [] horizontal	ill out for stor	rage tanks with	Location [] indoor [] outdoor	Temperature (include units) [] controlled:	Floating Roof [] internal [] external
rage k ID	Storage tank paral Material Stored (ref. B-1) MN	meters Diameter	Capacity	(F Orientation [] horizontal [] vertical	ill out for stor	rage tanks with	Location [] indoor [] outdoor [] underground [] indoor [] outdoor	Temperature (include units) [] controlled: [] ambient [] controlled:	Floating Roof [] internal [] external [] none [] internal [] external

Facili	ty Tracking	Number: —		FORM G	. Mixing Operations]	Page 1 of 1 (Copy of)
G-1.	Mixing ope			S	Mixing operation name	o:	
G-2.	This mixing	g operation	services:	[] Entire facility	y [] Specific coa	ting scenarios	
	If m	ixing operat	tion serves spe	ecific coating sco	enarios, list each applicable co	oating scenario: _	
G-3.	Mixing equ	ipment					
Equip	ment Type	Number	Capacity	Capacity	Emissions Capture for T	his Equipment	Integrated Emission
De	scription	of This Type		Units	Description	Efficiency (percent)	Controls (covers, etc.)
G-4.	Enclosures	and vents	are: [] per t	his mixing area	or room [] per these eq	uipment types	[] both
G-5.	Enclosure:	[] Open	, unhooded	[] Open	, hooded [] Encl	osed and vented	

[] To atmosphere

[] To building interior

G-6. Vented:

[] To control device, number CD ______

Facili	ty Tracking Number: FORM H. Cleaning Operations Page 1 of 2 (Copy _ of _
H-1.	Cleaning operation identification Cleaning operation number: EC Cleaning operation name:
H-2.	This cleaning operation services: [] Entire facility [] Specific coating scenarios
	If cleaning operation serves specific coating scenarios, list each applicable coating scenario:
Н-3.	General type of cleaning operation (Check all that apply to the specific cleaning operation represented on this sheet.) [] Spray gun cleaning; automated enclosed cleaner [] Spray gun cleaning; manual open vat
	[] Spray gun cleaning; other: [] Paint line flushing
	[] Mixing tank cleaning [] Storage tank cleaning
	[] In-place cleaning of roll-coater equipment [] Roll-coater parts; removed from the coater prior to cleaning
	[] Spray booth cleaning [] Paint hook cleaning
	[] Burn off oven [] Flush cleaning
	[] Parts cleaning not associated with surface preparation (as described in Form E):
	[] Other:
H-4.	Materials used

	Material ID (ref. B-1)	Annual Usage	Usage Units
I	MN		

Material ID (ref. B-1)	Annual Usage	Usage Units
MN		

Facility	Tracking	Number

FORM H. Cleaning Operations

Pa	ige 2 of	f 2
(Copy	of)

H-5.	Alternati	Alternatives to solvent-based and HAP containing materials				
		If you use solvent-based materials or materials containing HAP in this cleaning operation, describe any alternative materials that have been investigated as replacements and provide your assessment of them:				
	_					
Н-6.	Pollution	prevention housekeeping or	work practice activities			
	D	escribe any housekeeping or wo	ork practice activities that y	ou have investigated as pollution prevention measures:		
	_					
н-7.	Rags and					
	If rags or wipes are used in conjunction with this cleaning operation, describe the handling, storage, and disposal of used rages and wipes:					
H-8.	Enclosur	e: [] Open, unhooded	[] Open, hooded	[] Enclosed and vented		
Н-9.	Vented:	[] To building interior	[] To atmosphere	[] To control device, number CD		

Facility	Tracking	Number:

FORM I. Waste and Wastewater

Pa	ge 1 o	of 1
(Copy	of	

I-1. Waste generation

Waste Type	Annual Quantity of Waste	Waste Generated	Is this Waste Treated	Are Air Emissions Controlled?	Sources of Waste (list all coating scenarios
	Generated	Units	On-site?	Controlled:	that apply, ref. D-1)
			[] yes	[] yes; CD	11 0/
[] wastewater			[] no	[] no	
			[] varies	[] varies	
			[] yes	[] yes; CD	
[] sludge waste			[] no	[] no	
			[] varies	[] varies	
			[] yes	[] yes; CD	
[] waste solvents			[] no	[] no	
			[] varies	[] varies	
			[] yes	[] yes; CD	
[] waste coatings			[] no	[] no	
			[] varies	[] varies	
			[] yes	[] yes; CD	
[] other:			[] no	[] no	
			[] varies	[] varies	
I-2. Mode of wastewater transportation: [] Open trench					
[] Open pipe					
[] Closed pipe					
[] Holding tank; termination point:					
[] Other:					

Facility	Tracking	Number:
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FORM J. Comment Sheet

Page 1 of 1 (Copy __ of __)

J-1.	These extra comments are for	
	Form:	Page:
	Item number (example, A-1):	Copy (if you have multiple copies of a page):
J-2.	Comments	